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PTO/SB/05 (4/98)
Approved for use through 09/30/2000. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))

Attorney Docket No. 12-0887

First Inventor or Application Identifier Hanna H-S. Hsu

Title POLYPHASE FILTER WITH STACK SHIFT CAPABILITY

Express Mail Label No. EJ789028369US

APPLICATION ELEMENTS
See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

1. ☒ * Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☒ Specification [Total Pages 14]
(preferred arrangement set forth below)
 - Descriptive title of the Invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to Microfiche Appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
3. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 6]
4. Oath or Declaration [Total Pages 3]
 - a. ☒ Newly executed (original or copy)
 - b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))
(for continuation/divisional with Box 16 completed)
 - i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).

5. ☐ Microfiche Computer Program (Appendix)
6. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. ☐ Computer Readable Copy
 - b. ☐ Paper Copy (identical to computer copy)
 - c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

7. ☒ Assignment Papers (cover sheet & document(s))
8. ☒ 37 C.F.R. § 3.73(b) Statement (when there is an assignee) ☒ Power of Attorney
9. ☐ English Translation Document (if applicable)
10. ☒ Information Disclosure Statement (IDS)/PTO-1449 ☒ Copies of IDS Citations
11. ☐ Preliminary Amendment
12. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
13. ☐ * Small Entity Statement(s) ☐ Statement filed in prior application (PTO/SB/09-12) ☐ Status still proper and desired
14. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
15. ☐ Other:

NOTE FOR ITEMS 1 & 13 IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

16. If a **CONTINUING APPLICATION**, check appropriate box, and supply the requisite information below and in a preliminary amendment:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No: _____ / _____

Prior application information: Examiner _____

Group / Art Unit: _____

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

17. CORRESPONDENCE ADDRESS

☐ Customer Number or Bar Code Label

(Insert Customer No. or Attach bar code label here)

or ☒ Correspondence address below

Name	Patent Counsel				
	TRW Inc.				
Address	Law Dept.				
	One Space Park, Bldg. E2/6072				
City	Redondo Beach	State	CA	Zip Code	90278
Country	U.S.A.	Telephone	(310) 812-4910	Fax	(310) 812-2687

Name (Print/Type)	Michael S. Yatsko	Registration No. (Attorney/Agent)	28,135
Signature	Michael S. Yatsko	Date	11/24/99

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

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FEE TRANSMITTAL
for FY 1999Patent fees are subject to annual revision.
Small Entity payments must be supported by a small entity statement,
otherwise large entity fees must be paid. See Forms PTO/SB/09-12.**TOTAL AMOUNT OF PAYMENT** (\$)**878.00****Complete if Known**

Application Number	Unassigned
Filing Date	November 24, 1999
First Named Inventor	Hanna H-S. Hsu
Examiner Name	Unassigned
Group / Art Unit	N/A
Attorney Docket No.	12-0887

METHOD OF PAYMENT (check one)

- 1.
- ☒
- The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Deposit Account Number	20-1515
Deposit Account Name	TRW Inc.

- ☒
- Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

- 2.
- ☐
- Payment Enclosed:
-
- ☐
- Check
- ☐
- Money Order
- ☐
- Other

FEE CALCULATION**1. BASIC FILING FEE**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
101 760 201 380		Utility filing fee	760.00
106 310 206 155		Design filing fee	
107 480 207 240		Plant filing fee	
108 760 208 380		Reissue filing fee	
114 150 214 75		Provisional filing fee	

SUBTOTAL (1) (\$)**760.00****2. EXTRA CLAIM FEES**

Total Claims	Extra Claims	Fee from below	Fee Paid
9	-20**= 0	18.00	0.00
Independent Claims	4	-3**= 1	78.00
Multiple Dependent			0.00

**or number previously paid, if greater; For Reissues, see below

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
103 18 203 9		Claims in excess of 20	
102 78 202 39		Independent claims in excess of 3	
104 260 204 130		Multiple dependent claim, if not paid	
109 78 209 39		** Reissue independent claims over original patent	
110 18 210 9		** Reissue claims in excess of 20 and over original patent	

SUBTOTAL (2) (\$)**78.00****FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
105 130 205 65		Surcharge - late filing fee or oath	0.00
127 50 227 25		Surcharge - late provisional filing fee or cover sheet	0.00
139 130 139 130		Non-English specification	0.00
147 2,520 147 2,520		For filing a request for reexamination	0.00
112 920* 112 920*		Requesting publication of SIR prior to Examiner action	0.00
113 1,840* 113 1,840*		Requesting publication of SIR after Examiner action	0.00
115 110 215 55		Extension for reply within first month	0.00
116 380 216 190		Extension for reply within second month	0.00
117 870 217 435		Extension for reply within third month	0.00
118 1,360 218 680		Extension for reply within fourth month	0.00
128 1,850 228 925		Extension for reply within fifth month	0.00
119 300 219 150		Notice of Appeal	0.00
120 300 220 150		Filing a brief in support of an appeal	0.00
121 260 221 130		Request for oral hearing	0.00
138 1,510 138 1,510		Petition to institute a public use proceeding	0.00
140 110 240 55		Petition to revive - unavoidable	0.00
141 1,210 241 605		Petition to revive - unintentional	0.00
142 1,210 242 605		Utility issue fee (or reissue)	0.00
143 430 243 215		Design issue fee	0.00
144 580 244 290		Plant issue fee	0.00
122 130 122 130		Petitions to the Commissioner	0.00
123 50 123 50		Petitions related to provisional applications	0.00
126 240 126 240		Submission of Information Disclosure Stmt	0.00
581 40 581 40		Recording each patent assignment per property (times number of properties)	40.00
146 760 246 380		Filing a submission after final rejection (37 CFR 1.129(a))	0.00
149 760 249 380		For each additional invention to be examined (37 CFR 1.129(b))	0.00
Other fee (specify) _____			0.00
Other fee (specify) _____			0.00

* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)**40.00****SUBMITTED BY**Typed or Printed Name **Michael S. Yatsko**Signature *Michael S. Yatsko*Date **11/24/99****Complete (if applicable)**Reg. Number **28,135**Deposit Account User ID **2,165**

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